

January 1, 2007 – March 31, 2007

Contract # DTPH56-06-T-000006

Prepared for: U.S. DOT/RSPA

**LONG-TERM MONITORING OF CASED PIPELINES USING
LONG-RANGE GUIDED-WAVE TECHNIQUE**

4th Quarterly Report

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April 12th, 2007

Public Page

The SwRI Magnetostrictive Sensor (MsS) system is being developed and advanced along with a defect characterization model based on a partnership between PHMSA/OPS, NYSEARCH/NGA (gas industry research consortium and user group) and SwRI. This program addresses development and testing of the MsS for use in cased crossings.

The MsS system is unlike other guided-wave inspection techniques and is unique because it applies a permanently-installed Magnetostrictive Sensor (MsS) that permits testing of cased section of pipelines over time and without costly preparation. With a capability to both monitor activity over time and characterize the defects, the technology could potentially provide accurate tracking of defect growth with time and could give operators specific information to address inspection indications. During the Fourth Quarter, the project team performed several tasks as outlined below.

Task #2 Develop Algorithm

- Start date: 1 July 2006
- Scheduled completion date: 31 December 2006
- Status: Completed

Task #3 Improve Data Analysis Software for Inspecting

- Start Date: 1 April 2006
- Scheduled Completion Date: 31 January 2007
- Status: Ongoing; 80% complete

Task #M1 Project Review Meeting

- Start Date: 1 December 2006
- Scheduled Completion Date: 31 December 2006
- Status: Completed

Task #M3 Planning and Preparation for Field Tests

- Start Date: 1 December 2006
- Scheduled Completion Date: 31 March 2007
- Status: Delayed Start; Now Ongoing

Task #M4/5 Test on NYSEARCH/NGA Test Bed

- Start Date: 1 February 2007
- Scheduled Completion Date: 31 March 2007
- Status: Delayed Start; currently scheduled to start 23 April 2007

Task #M1/4 Sponsor Witness of Test Bed MsS Conditions

- Start Date: 1 February 2007
- Scheduled Completion Date: 31 March 2007
- Status: Delayed Start; currently scheduled for late April 2007

Task #M5 Fourth Quarterly Report

- Start Date: 1 January 2007
- Scheduled Completion Date: 31 March 2007
- Status: Completed